PAPERS

IN

AGRICULTURE.

No. I.

PLANTATIONS.

The LARGE GOLD MEDAL *was presented to* EDWARD ROGERS, *Esq. of Stanage Park, in the County of Radnor, for his Plantation of Forest Trees, as described in the following communication.*

SIR,

HAVING observed that the Society are desirous of obtaining information as to the existence and state of the various plantations made in Great Britain within the period of their establishment, I beg leave to transmit to you some account of those made at Stanage by my father and myself, from the year 1799 up to the present time. It had occurred to me more than once to assert my pretensions to the Medal of the Society, but till the last year I was not aware that it extended its rewards to the planter of an aggregate number of trees, planted in different successive years.

In the year 1799, this park was so entirely denuded of timber, that in the space of 417 acres I can recollect only 43 oak-trees of large dimensions: birch, ash, and alder, constituted the remainder of the wood. My father immediately commenced by inclosing about 150 acres, which he dibbled with acorns, and gradually planted with trees of various sorts;—he proceeded to make other inclosures, containing 39 acres, which he planted in the same way; and shortly after he commenced planting a hill that overhangs and adjoins the park, to the extent of 168 acres more. The greater part of these plantations were dug with holes, and the trees planted by hand, at the distance of 4 to 5 feet apart, taking care to insert oak in such places, and at such distances, that they might stand for timber. In only one place have the plants been nicked into the turf, and that was on the highest part of the hill, where small seedling plants were used, in the hope, which has been fully justified, that they would become better rooted, and firmer to resist the wind, when their height should expose them to its power. In all these plantations, both in and out of the park, the growth of the oak-timber has been most satisfactory; and I may safely challenge any planter to shew as large a number of thriving oak-plants upon an acre as may be seen here, wherever the larch and Scotch fir have been cleared away. This clearing, which is constantly going on, would proceed more rapidly, were it not for the difficulty of disposing of the fir-poles; many of these are now of large size, and sell at timber price. Some planted in 1802 have been sold at 1*s*. 3*d*. per foot, producing from 12*s*. to 20*s*. per tree; but the demand is small, and, beyond my own wants for repair, we have little means of disposing of them. In some of the later plantations I have endeavoured to obviate the evil of the

mixture of the firs with the oak, for there is always a difficulty in removing these nurses in proper time. I have planted alternate rows of larch, Scotch fir, and oak —in some instances two rows of Scotch fir to one of oak, and I remove an entire row of the fir-timber at once, and so continue, till at last I get rid of it altogether. The firs are in this way more easily got at and removed, and with less danger to their neighbours, than when planted in the usual mixed plan. If there should appear any objection to the trees remaining in rows, it may be obviated by removing some of the young oaks, and by planting occasionally one or two oaks in the rows of the firs. In the earlier period of these plantations, the larch were much affected by the white insect, but they seem in their growth to have entirely thrown it off, and nothing can be more straight or beautiful than the appearance of the plants at present. I may remark, that much mischief has been done in some places by the field-mouse, which has been known to bite asunder oak and beech plants of an inch and a half diameter; nor have we been able to devise any effectual means of destroying these animals: the firs they never touch. The trees which have thriven least have been the beech and lime; and I am inclined to think that our soil, which is very deep clay, is not at all congenial to these species. The beech grows and swells for a certain time, and then the bark cankers, and the leaves fail. The lime (the red-twigged) which has been planted in various places for ornament, bursts its bark, and becomes diseased at the point where it issues from the ground, as soon as the trees acquire any size. All the tribe of firs, except the Balm of Gilead, prospers greatly, but the oak is the tree that thrives the best, and I have many trees that have not been planted more than twenty-five years, which measure

two feet nine inches in circumference at five feet from the ground, with bright and shining bark, and clear heads. The soil indeed seems most congenial to the growth of oak-timber, for the few old trees that remain, are of great size, and the stumps of very large trees are yet visible in many parts of the park.

Most of the trees now growing in these woods were purchased as seedlings, or grown from acorns, and planted in a nursery, from which they have been transplanted, after two or three years. I subjoin the annual total of trees planted out since the year 1805, which has been accurately noted by the plantation gardener, and may be attested by neighbouring authority, if required. In addition to these, many thousands of trees of various sorts have been planted out singly for ornament; of these, the Turkey oak and the Spanish chestnut thrive the best—the Spanish chestnut swells and increases rapidly, both in bulk and height. My table has been supplied all this winter by fruit from trees planted in 1807. The sycamore also thrives greatly and luxuriantly. In planting single trees, or avenues, I have followed the Dutch method of giving them precisely the same situation with regard to the points of the compass, as that in which they stood before they were moved; and I find that the roots shoot, and the trees recover themselves much sooner in this way, than when transplanted without consideration: and I have found much advantage in a plan recommended, I believe, by Mr. Loudon, for keeping the trees steady and firm in their places, by placing three pieces of wood triangularly on the root, and pegging them down to the ground by long forked stakes at the angles. I have not much adopted Sir Henry Steuart's plans, for I found they required considerable expense, and more constant atten-

tion than I could get my labourers to give. I may add, that the lands here described as planted, were for the most part unfit for other purposes, and chiefly used as sheep-walk.

I am, Sir, &c. &c.

A. Aikin, Esq.
Secretary, &c. &c.

Edw. Rogers.

Number of Trees planted out at Stanage, from 1805 to 1834.

		Brought forward,	339,131
1805	6,506	1820	27,806
1806	9,225	1821	40,101
1807	20,693	1822	16,282
1808	27,989	1823	18,100
1809	52,841	1824	21,125
1810	62,626	1825	27,900
1811	32,950	1826	13,580
1812	4,516	1827	87,025
1813	49,973	1828	10,400
1814	23,993	1829	18,064
1818	35,260	1830	23,334
1819	12,559	1831	8,960
Carried forward,	339,131		651,808

The accounts for 1815, 16, and 17, are missing,—supposed to have been mislaid by a gardener who quitted the service; but there is no doubt that the number of trees planted in those years was quite equal to those here stated. Since 1831 the planting has been on a much lesser scale.

E. R.

Stanage Park, Ludlow,
Feb. 23, 1835.

SIR,

In transmitting to you the account of the number of trees planted out at Stanage, I ought to have stated it as for the seasons, instead of the years, in which the planting was done; this will make the last statement to be for the season 1831-32, beyond which time no planting has been done on a large scale. I have since discovered the accounts for the years that were missing, and supply them; which will increase the total of trees planted from 1802 to 1832, inclusive, 760,125. I subjoin an account of a plantation made in 1827, as a specimen of the whole, both as to description and cost.

I am, Sir, &c. &c.

A. AIKIN, Esq. EDW. ROGERS.
Secretary, &c. &c.

1827.

Planted two pieces of ground on the Reeves Hill, containing 35 acres, began the 13th Nov. and finished 13th Dec.

1st piece,	Scotch Firs	11,600	
—	Spruce	6,550	
—	Beech	9,300	
—	Oak	10,100	
			37,550
2d piece,	Larch	10,000	
—	Scotch	9,200	
—	Spruce	2,000	
—	Oak	4,800	
—	Beech	2,000	
—	Spanish Chestnut	600	
—	Silver Fir	400	
			29,000
	Total of trees in the two pieces		66,550

Cost of the foregoing.

	£.	s.	d.
108½ perches of hedging, at 10*d.*	4	10	5
55 ditto of draining, at 4*d.*	0	18	4
Making 29,000 holes, at 10*s.*	14	10	0
Making 19,400 ditto, at 9*s.* 2*d.*	8	17	10
Cutting stakes, and loading	0	18	0
Carriage of trees to the hill, 7 days, at 18*s.*	6	6	0
Labour	17	18	0
Value of trees, say 1*l.* 10*s.* per 1000	99	15	0
	153	13	7

We the undersigned do hereby certify that we have read the account of the plantations at Stanage, sent by Mr. Rogers to the Society for the Encouragement of Arts, &c.; that we are well acquainted with the said plantations, and believe the statement to be true and correct, and that the trees described are in a healthy and thriving state.

DAVID RODNEY MURRAY, Rector of Brampton Brian, and one of His Majesty's Justices of the Peace for the County of Hereford.

JNO. L. COOKE, Brampton Brian.

WALTER JONES, Magistrate for the County of Radnor.

RICHD. MARSTON, Freeholder.

SIR, *Stanage Park, April 3rd,* 1835.

In the absence of Mr. Rogers, I am desired to transmit you the enclosed.

I am, Sir, &c. &c.

WILLIAM BOWLES,
Steward to Edw. Rogers, Esq.

A. AIKIN, Esq.
Secretary, &c. &c.

No. II.

SPADE HUSBANDRY.

The Thanks of the Society were voted to GEORGE BURROWS, *Esq. of Norwich, for his successful application of Trenching to Land liable to scald, as detailed in the following communication.*

PERMANENT IMPROVEMENT AND PROFITABLE EMPLOYMENT FOR AGRICULTURAL LABOURERS.

SIR, *Norwich, June 9th,* 1834.

IN every district there are patches of land, more or less extensive, where the spade may be profitably used. These patches are commonly called "scalds," and in proof that scaldy places may be cured where a thin surface-soil covers a hard or stony sub-soil, I beg to submit the following results of experiments tried last year on land from which a crop of potatoes had been taken in 1832.

1. Half an acre trenched three spits deep, or thirty inches; the middle and bottom spits reversed, but the top spit thrown again on the top.